

Miyasaka is applied for disclosing a housing member 4, a second rotor 15 and a locking pin 37 for locking the relative rotation of the housing member 4 and rotor 15. Member 44 is applied against the claimed engaging hole for receiving locking pin 37. The Examiner acknowledges that Miyasaka fails to disclose that the engaging hole is formed from one of the rotors. The Examiner then contends that it would have been obvious to one of ordinary skill in the art to make the engaging hole separate, instead of being integral to the rotor. Applicants respectfully point out that making the engaging hole separate (i.e., using a press-fit insert) does not teach the claimed invention, but is instead the teaching of Miyasaka. In the event that the Examiner intended to argue that it would be obvious to make the engaging hole part of rotor, Applicant notes that a proper rejection under 35 U.S.C. § 103 requires the following:

A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page numbers and line numbers where appropriate,

(B) the difference or differences in the claim over the applied references,

*(C) the proposed modification of the applied references necessary to arrive at the claimed subject matter, and*

(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

(See MPEP §706.02(j)).

The grounds of rejection amount to a naked statement of obviousness, without any evidentiary support or motivation. By way of an example, and not by way of limitation, a modification of Miyasaka to obtain the claimed features would require at least the following: 1) removal of engaging member 44; 2) providing the plate member 7 (see Figure 5B) with the appropriate surface hardening, 3) redesigning the shape of the plate member 7 to accommodate

the engaging pin 37; 4) providing the plate member 7 with a passageway 46; and 5) providing the plate member 7 with an additional area that encircles the recited surrounding area (as claimed) and which does not include the surface treatment. Applicants respectfully submit that motivation to provide the modification is not present in Miyasaka. If the Examiner disagrees, he is requested to inform Applicants where such motivation is found.

The grounds of rejection also contend that the record does not establish that the engaging hole being formed from the rotor represents a novel or unexpected result. Applicants respectfully point out that the test for patentability is not whether a specification explicitly labels an element as providing an “unexpected result.” Nevertheless, the Examiner is invited to read the first full paragraph on page 14 of the specification that discusses benefits obtained from an exemplary embodiment of the invention. Also, the present application points out the deficiencies in the prior art and actually describes a configuration similar to that of Miyasaki, which includes a discrete part of high hardness that is press-fit into an engaging hole. (See page 5, first full paragraph of the present specification).

Applicants therefore request withdrawal of the rejection under 35 U.S.C. § 103(a) in view of Miyasaki, along with the rejection of claims 3, 4 and 6 at least because these claims depend from claim 1.

*Claims 1, 3-6*

Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mikame et al. (U.S. Patent 5,724,929 [hereafter “Mikame”]) in view of Hase (U.S. Patent 6,523,511). Applicants respectfully traverse the rejection in view of the following remarks.

Mikame is cited for disclosing a variable valve timing mechanism including a first rotor or sprocket 51, a second rotor 52 and a rotation regulating member or lock pin 60. Mikame discloses a plate 53 with an engaging hole 533. The Examiner acknowledges that Mikame does not disclose the claimed area that encircles the engaging hole and which does not include the surface treatment. Hase is cited for allegedly disclosing this feature.

Hase discloses that “the area surrounding the stepped portion 9 and the locking hole 8 is processed by a quenching operation.” (See col. 5, lines 52-54). Applicants submit that this disclosure of Hase would not have taught or suggested the features of claim 1 regarding the additional area that encircles said surrounding area and does not include the surface treatment. For example, Hase does not limit the area to which the treatment is applied, but instead would teach that at least the area surrounding the stepped portion 9 and the locking hole 8 is processed by a quenching operation. As noted in the present specification, prior valve timing adjusting apparatus have adopted a so-called “total quench” hardening process. (See page 14, first full paragraph). Hase does not distinguish between the total quench hardening process and a localized hardening; therefore, Applicants submit that it is improper for the Examiner to add to the disclosure of Hase by interpreting it as teaching that only “the area surrounding the stepped

portion 9 and the locking hole 8 is processed by a quenching operation.” Because Hase does not make this distinction, it does not supplement the deficient teachings of Mikame in a manner that teaches or suggests the features of claim 1.

Accordingly, Applicants submit that claim 1 is not obvious in view of Mikame and Hase, such that the rejection under 35 U.S.C. § 103(a) should be withdrawn. The rejection of dependent claims 3-6 should likewise be withdrawn at least due to these claims depending on claim 1.

*Claim 2*

Claim 2 is rejected under 35 U.S.C. 103(a) as being obvious over Miyasaka or Mikame as modified by Hase. Applicants respectfully traverse the rejection in view of the following remarks.

The Examiner acknowledges that the applied references fail to disclose the oxide-film forming surface treatment recited in claim 2. As an initial matter, claim 2 is deemed patentable over the art at least due to its dependency on claim 1. Applicants also respectfully submit that the Examiner has not established a *prima facie* case of obviousness. This is because no reasons are provided to support why one would have been motivated to apply an oxide-film forming surface treatment to either of Mikame, Miyasaka or Huse, nor has the Examiner applied a reference that discloses an oxide-film.

Because the Examiner has not cited any reference against the claimed oxide-film forming treatment, it appears that Office Notice is taken. However, the Examiner may not rely on official